September 23, 1983

Office of the Director Central Intelligence Agency Washington, D.C. 20505

Dear Sir:

Recently, the Electromagnetic Fields Division of the National Bureau of Standards (NBS) participated in a discussion concerning *high power microwaves*. NBS has an interest in providing the proper measurement methods (and the standards to support such) to determine (measure) those electromagnetic quantities associated with *high power microwaves*.

The NBS Electromagnetic Fields Division is currently involved with developing improved methods of measurements for electric and magnetic fields, electromagnetic power density, electromagnetic noise, and antenna fields and patterns. The NBS Electromagnetic Technology Division is involved with developing new and improved measurements of power, impedance, attenuation, etc., the classical electromagnetic quantities. These measurement related efforts could all be of interest to the "high power microwaves" community.

While NBS has an excellent measurements support base for many electromagnetic quantities we are unsure if we have a proper support base for "high power microwaves". Further, we are unsure if our plans for future NBS efforts are properly concerned with measures for "high power microwaves".

Accordingly, at the suggestion of personnel in the Naval Intelligence Support Center, we are contacting your organization (and others as well) to determine your interests in "bigh power microwaves", to determine your measurement needs related to such, to determine if NBS has available appropriate measurements support to meet these needs, to determine if NBS should provide new measurements support, to determine the priority of providing such support, etc.

We realize that discussion of the above may be of a classified nature. Our staff includes a number of personnel having Secret, Top Secret and Q clearances and, accordingly, are prepared for classified discussions should such be necessary.

Is your organization interested in or concerned with "high power microwaves"? It so, can your organization pruvide answers to the above NBS concerns? If so, would a meeting/discussion between personnel from your organization and NBS personnel be a mutually beneficial affair? If so, should such a meeting be held at your facility or at the NBS Boulder Laboratories? We can arrange meeting rooms for classified discussions and, further, we would be pleased to show you our facilities, our capabilities, and the results of our latest developments in measurements for electromagnetic quantities.

We would appreciate hearing from you concerning this matter at your earliest convenience. If you wish to call, my telephone number is (303) 497-3285.

Sincerely.

Wallace J. Alspach

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Technical Program Development Officer

Electromagnetic Fields Division

Center for Electronics and Electrical Engineering

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